

LAMPIRAN

1. Hasil Analisa

Tabel 4. Hasil pengamatan distilasi minyak jahe

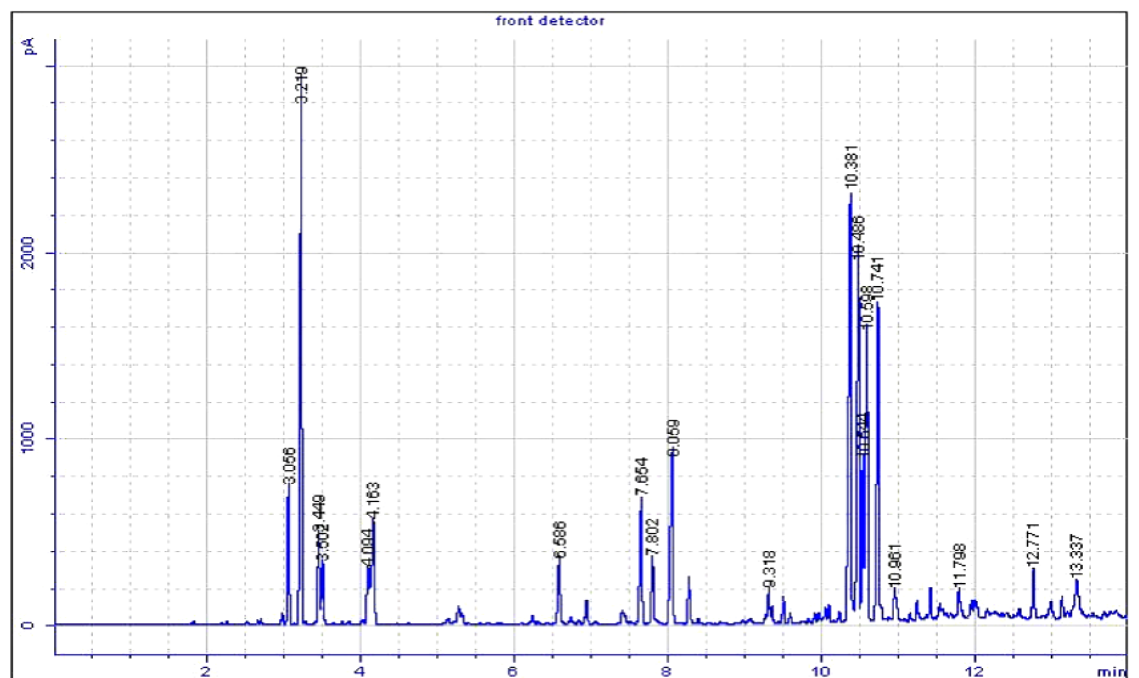
Waktu	Volume Minyak Jahe
Jam ke-1	-
Jam ke-2	0,10 ml
Jam ke-3	0,12 ml
Jam ke-4	0,17 ml
Jam ke-5	0,21 ml
Jam ke-6	0,25 ml
Jam ke-7	0,15 ml
Total	1 ml

Tabel 5. Perbandingan Standart Mutu Minyak Jahe Menurut Essential Oil Association dengan Minyak Jahe Hasil Distilasi

Komponen	Standart Baku Mutu Minyak Jahe EOA	Ampas Jahe Segar (variabel A)	Ampas Jahe Fermentasi 1 Hari (Variabel B)	Amas Jahe Fermentasi 3 Hari (Variabel C)
Warna	kuning muda – kuning	kuning muda	kuning	kuning
densitas (gr/ml)	0.877 – 0.882	0,86	0,881	0,879
indeks bias	1.486 – 1.492	1,489	1,486	1,488
Kadar Zingiberen	20 %	4,81 %	7,80 %	7,58 %

Tabel 6. Analisa GC

Signal	Retention Time [min]	Type	Width [min]	Area [pA*s]	Area %
1	3.056	VV	0.024	1180.40683	3.24651
1	3.219	VB	0.029	4907.37784	13.49691
1	3.449	BV	0.029	883.13852	2.42892
1	3.502	VB	0.029	623.07875	1.71367
1	4.094	VV	0.038	731.20971	2.01107
1	4.163	VB	0.038	1433.20721	3.94179
1	6.586	BB	0.034	794.05305	2.18391
1	7.654	BB	0.032	1402.80450	3.85818
1	7.802	BB	0.032	740.22107	2.03585
1	8.059	BB	0.041	2260.38928	6.21682
1	9.318	BV	0.039	539.44190	1.48364
1	10.381	VV	0.036	5483.61225	15.08175
1	10.486	VV	0.033	4195.82191	11.53990
1	10.544	VV	0.026	1467.95192	4.03735
1	10.598	VB	0.031	3105.96298	8.54243
1	10.741	BB	0.032	3475.37216	9.55842
1	10.961	VV	0.044	558.10596	1.53498
1	11.798	VV	0.047	635.33488	1.74738
1	12.771	VV	0.037	719.60325	1.97915
1	13.337	VV	0.075	1222.16366	3.36135



Gambar 5. Grafik Analisa GC

2. Perhitungan

a. Kadar Air

Berat ampas jahe basah = 133,43 gram

Berat ampas jahe kering = 110,56 gram

$$\begin{aligned} \text{Kadar air} &= \frac{\text{Berat Basah} - \text{Berat Kering}}{\text{Berat Basah}} \times 100\% \\ &= \frac{133,43 - 110,56}{133,43} \times 100\% \\ &= 17,14\% \end{aligned}$$

b. Densitas

Berat piknometer kosong = 10,84 gr

Berat piknometer isi = 20,70 gr

Volume minyak = 1 ml

Volume air = 9 ml

Densitas air = 1 gr/ml

$$\begin{aligned} \text{Densitas minyak} &= \frac{(\text{pikno isi} - \text{pikno kosong}) - (\text{vol. air} \times \text{densitas air})}{\text{vol. minyak}} \\ &= \frac{(20,70 - 10,84) - (9 \times 1)}{1} \\ &= 0,86 \text{ gr/ml} \end{aligned}$$

c. Rendemen

Berat Kering Ampas = 4,97 kg = 4970 gr

Volume Minyak = 1 ml

Densitas Minyak = 0,86 gr/ml

$$\begin{aligned} \text{Rendemen} &= \frac{\text{vol. Minyak} \times \text{Densitas Minyak}}{\text{Berak Kering Ampas}} \times 100\% \\ &= \frac{1 \times 0,86}{4970} \times 100\% \\ &= 0,017\% \end{aligned}$$

3. Foto Minyak Jahe Hasil Distilasi



Gambar 7. Foto Minyak Jahe Hasil Distilasi